

# Simulation

16/2/2016

السؤال

الاجابة

الوقت

- \* **Model**: an abstraction of reality to study performance
- \* A Model can be physical, mathematical, graphical and others.

Why modeling?

- to study
- to communicate
- to analyze

\* **Simulation**: run the model to study the performance

\* You can model how things look and how they perform

## search for modes of thinking ##

\* search for UML diagrams

\* Making of software depends on personal skills and knowledge.

\* there are discrete models and continuous model along with the previous models.

\* The more closer the model is to reality, the more it's accurate

\* there is nothing random, but our limit of knowledge let us perceive things as random.

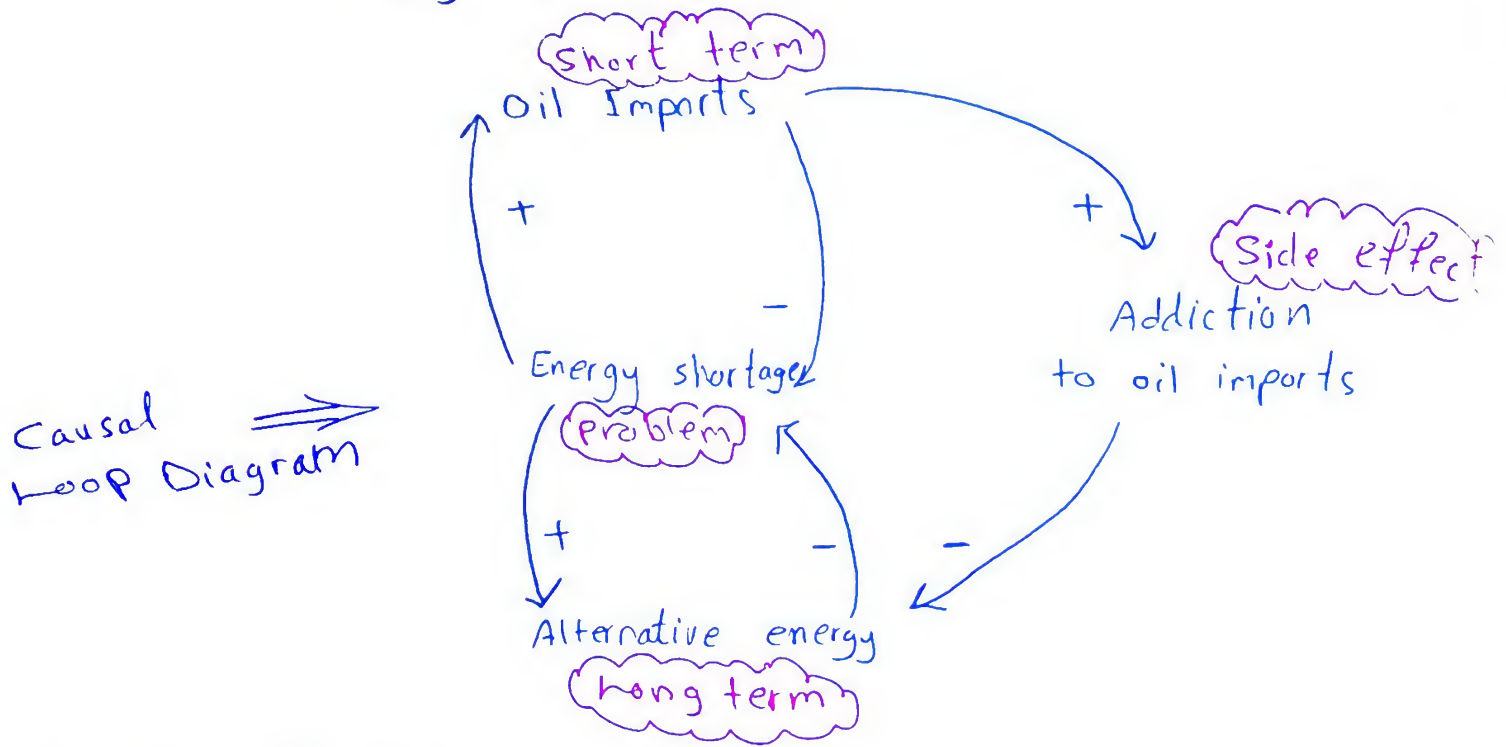
\* problems can have either long solution or quick solution.

# Long Solution: usually solves the main cause of problem

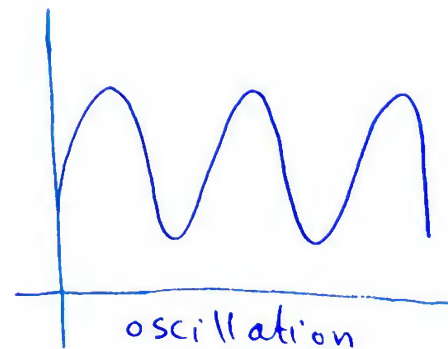
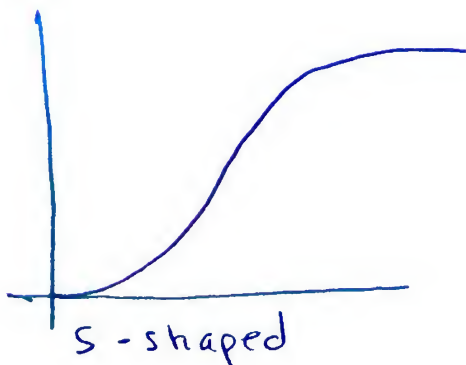
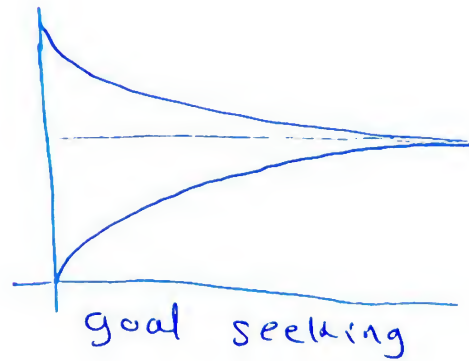
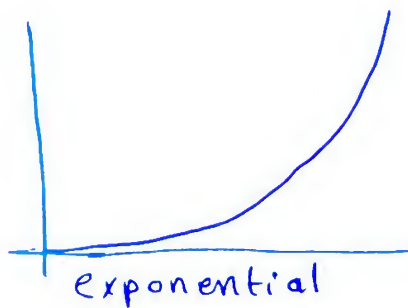
# quick Solution: usually solves the side effects

Example :-

"oil and energy problem"



\*Pattern of behaviors



Systems  
can be seen  
as  
3 Levels



① System Structure



② Pattern of behavior



③ events

download Ven Sim Application  
\* Search for System Dynamic